

Benzene, 1,1'-(1-heptenylidene)bis-

Other names:	1,1-Diphenyl-1-heptene 1-Heptene, 1,1-diphenyl-
Inchi:	InChI=1S/C19H22/c1-2-3-4-11-16-19(17-12-7-5-8-13-17)18-14-9-6-10-15-18/h5-10,12-16
InchiKey:	SRMGQBFDRIIXAH-UHFFFAOYSA-N
Formula:	C19H22
SMILES:	CCCCC=C(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	250.38
CAS:	1530-20-7

Physical Properties

Property code	Value	Unit	Source
gf	405.59	kJ/mol	Joback Method
hf	145.00	kJ/mol	Joback Method
hfus	31.94	kJ/mol	Joback Method
hvap	62.48	kJ/mol	Joback Method
log10ws	-6.10		Crippen Method
logp	5.699		Crippen Method
mvol	226.750	ml/mol	McGowan Method
pc	1853.11	kPa	Joback Method
tb	691.52	K	Joback Method
tc	921.48	K	Joback Method
tf	337.69	K	Joback Method
vc	0.865	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	609.71	J/molxK	691.52	Joback Method
cpg	628.95	J/molxK	729.85	Joback Method
cpg	646.82	J/molxK	768.17	Joback Method
cpg	663.42	J/molxK	806.50	Joback Method
cpg	678.85	J/molxK	844.82	Joback Method
cpg	693.23	J/molxK	883.15	Joback Method
cpg	706.66	J/molxK	921.48	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.35536e+01
Coeff. B	-4.60215e+03
Coeff. C	-1.11606e+02
Temperature range (K), min.	458.52
Temperature range (K), max.	669.98

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1530207&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume

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